

Title (en)  
ORGANIC ELECTROLUMINESCENT ELEMENT

Title (de)  
ORGANISCHES ELEKTROLUMINESZENTES ELEMENT

Title (fr)  
ÉLÉMENT ÉLECTROLUMINESCENT ORGANIQUE

Publication  
**EP 3168887 A1 20170517 (EN)**

Application  
**EP 15818378 A 20150708**

Priority  
• JP 2014141152 A 20140709  
• JP 2015069641 W 20150708

Abstract (en)  
The organic EL device of the present invention has an anode, a hole transport layer, a luminous layer, an electron transport layer, and a cathode in this order, and the hole transport layer contains an arylamine compound represented by the following general formula (1): where Ar 1 to Ar 4 each represent a monovalent aromatic hydrocarbon group or a monovalent aromatic heterocyclic group.

IPC 8 full level  
**C07D 209/86** (2006.01); **C07D 471/04** (2006.01); **C09K 11/06** (2006.01); **H01L 51/50** (2006.01)

CPC (source: EP KR US)  
**C07C 211/54** (2013.01 - EP US); **C07C 211/61** (2013.01 - EP US); **C07D 209/86** (2013.01 - KR); **C07D 401/10** (2013.01 - EP US); **C07D 471/04** (2013.01 - KR); **C09K 11/06** (2013.01 - EP KR US); **H10K 50/15** (2023.02 - KR); **H10K 85/631** (2023.02 - EP KR US); **H10K 85/633** (2023.02 - EP KR US); **C07C 2603/18** (2017.04 - EP US); **C09K 2211/1029** (2013.01 - KR); **C09K 2211/1044** (2013.01 - KR); **H10K 50/15** (2023.02 - EP US); **H10K 50/156** (2023.02 - EP US); **H10K 50/16** (2023.02 - EP US); **H10K 85/615** (2023.02 - US); **H10K 85/626** (2023.02 - US)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3168887 A1 20170517**; **EP 3168887 A4 20180314**; CN 106688119 A 20170517; CN 106688119 B 20190723; JP 6674892 B2 20200401; JP WO2016006629 A1 20170427; KR 102319949 B1 20211029; KR 20170028406 A 20170313; TW 201610089 A 20160316; TW I659085 B 20190511; US 10818844 B2 20201027; US 2017179398 A1 20170622; WO 2016006629 A1 20160114

DOCDB simple family (application)  
**EP 15818378 A 20150708**; CN 201580048317 A 20150708; JP 2015069641 W 20150708; JP 2016532954 A 20150708; KR 20177003149 A 20150708; TW 104122243 A 20150709; US 201515324133 A 20150708